

Lesson on Audio Editing


The lesson below is to help teachers and students gain a fundamental understanding of multitrack audio editing with Audacity. This lesson is intended to introduce teachers and students to the main features of Audacity to an extent that they can intuit more about the program on their own. It is designed so that there would be very little background knowledge required yet still employing a variety of important technological and language arts skills. I have used it successfully to show teachers from kindergarten to graduate school how to use and teach multitrack audio recording. You can do this lesson on your own to learn multitrack audio recording or use it for your students. This will provide you with enough skill and knowledge to do a variety of projects with audio in your classroom.

Assignment

You are producing a radio show about the California Gold Rush. Part of the show is to bring to life the actual words of the people who lived and participated in it. You base this particular segment on a letter from Lucius Fairchild, a young man from Madison, Wisconsin who left home at age 18 to strike it rich in California in 1849. The letter comes from Library of Congress's American Memories Project (<http://memory.loc.gov/ammem/>).

Audio Content

You will record the narration (the text of the letter below) and then mix in sound effects and music. You will record and edit each of the three tracks (narration, sound effects, music) separately and then mix them together.

February 12, 1850  Do not record the narration yet; just read

To J. C. Fairchild and Family,

...I think we are in the poorest diggings in the country and we have made as much this winter as any store in Madison can make in a year. About four weeks ago the river rose very high and drove us on the highest part of the bar where we supposed there was no gold of any consequence, but to our surprise we found it the richest part so we all took our ground and went to work, since that it has not rained and we have all done well. Ed & I have taken out over *Twelve hundred dollars* or over 2 ounces a day which is good wages...

I remain Your affectionate Friend,

Son, & Brother

For this tutorial, you will need an audio file of the song *My Darling Clementine*. Again, the easiest files to work with are mp3. You will also need the sound effects of mining. You can do this yourself, for example, by taking a few minutes and recording a hammer on a brick. For this project I have created both the song and mining sound effect for you to copy into your Gold Rush Folder from the Sound folder in the Shared Folder. During the course of this activity, students will make a folder called Gold Rush inside the Audacity folder. The Clementine song, the mining noise, the narration, the audacity file, and the exported file should all be in the Gold Rush folder.

Narrating the Letter

We will record the narration using a sound recording program instead of Audacity. This program is called Sound Recorder and should be under the accessories menu. The file created should be saved to the Gold Rush folder as narration.

You should narrate from the date to the end.

February 12, 1850

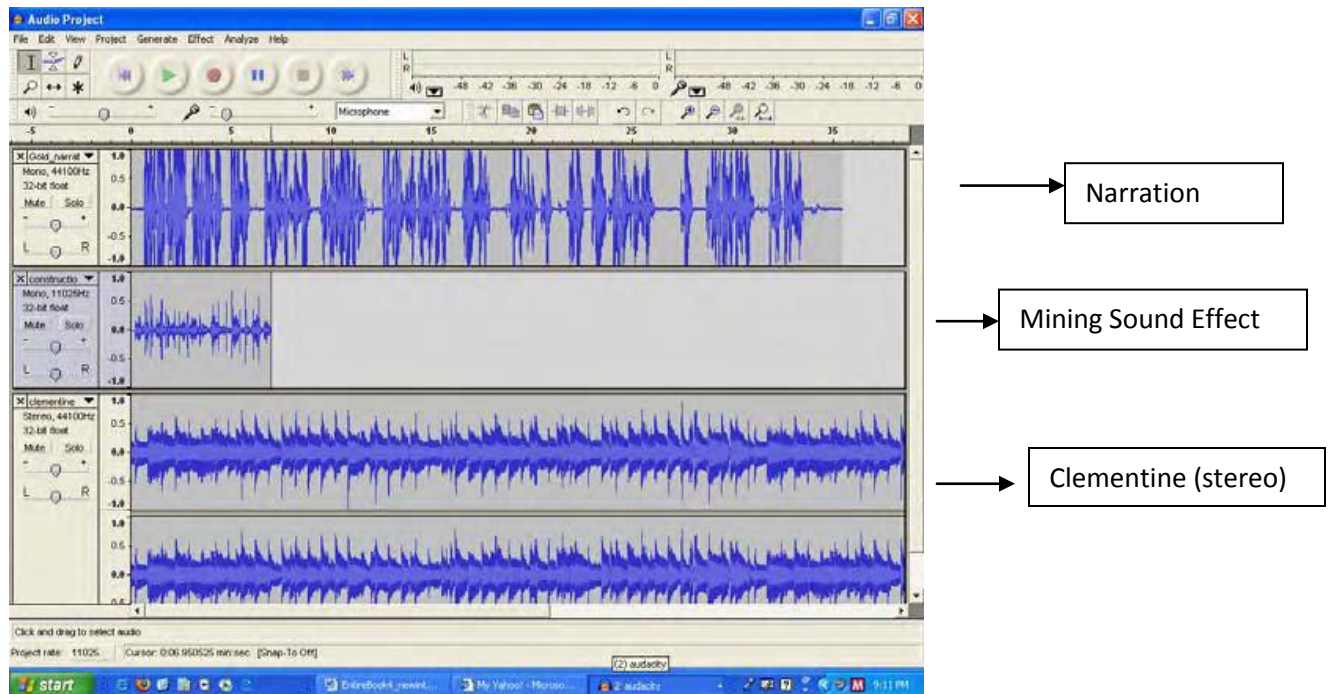
To J. C. Fairchild and Family,

...I think we are in the poorest diggings in the country and we have made as much this winter as any store in Madison can make in a year. About four weeks ago the river rose very high and drove us on the highest part of the bar where we supposed there was no gold of any consequence, but to our surprise we found it the richest part so we all took our ground and went to work, since that it has not rained and we have all done well. Ed & I have taken out over *Twelve hundred dollars* or over 2 ounces a day which is good wages...

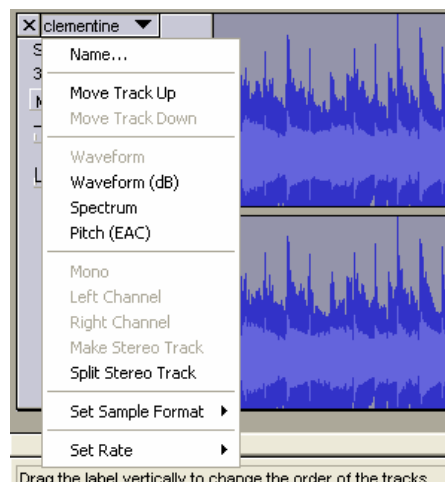
I remain Your affectionate Friend, Son, and Brother

Importing Existing Audio

After you copy the two audio files from my the shared folder to your Gold Rush folder, you will then import Clementine.mp3 and Mining.mp3 one at a time by going to Project/Import/Audio. You will also import the narration in this same manner.



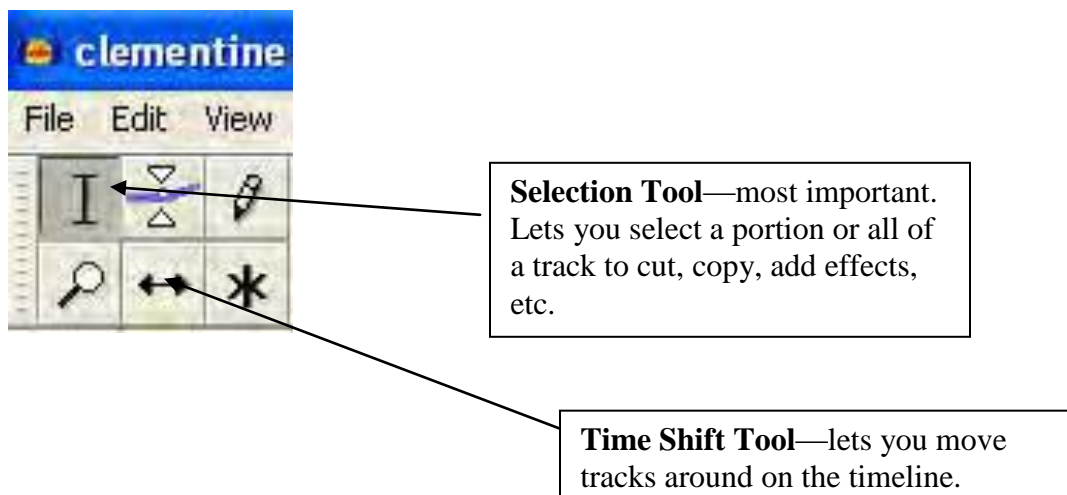
You can play a single track or combination of tracks by using the Mute and Solo buttons on each track's control panel. You can also move, rename, and do other actions to the tracks by clicking the top bar of the control panel.



Manipulating the Different Tracks

We will now manipulate the individual tracks. First, we will loop the mining sound effect so that it repeatedly plays throughout the recording. Second, we will arrange the music and sound effects so that they both start before the narration. Third, we will make the music and narration louder before the narration and lower during the narration. To do any editing your clip must be stopped, not paused.

You will work a lot with the Selection and Time Shift Tools.

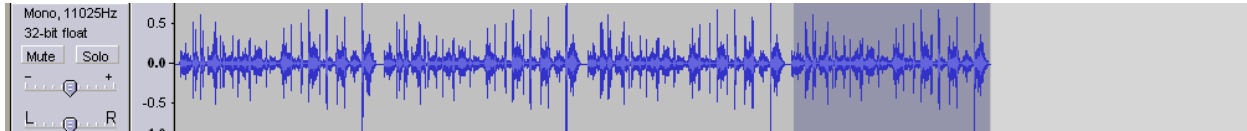


Looping a Track

Looping a track involves replaying it over and over to seamlessly convey a continuous sound. To loop the mining track, select it using the selection tool, copy it, and then paste in on the track next to the original selection. Repeat until it goes about 10 seconds beyond the narration. The bottom of the toolbar has a timeline in seconds. You may have to go to View/Zoom Out to get a better view of all the tracks.



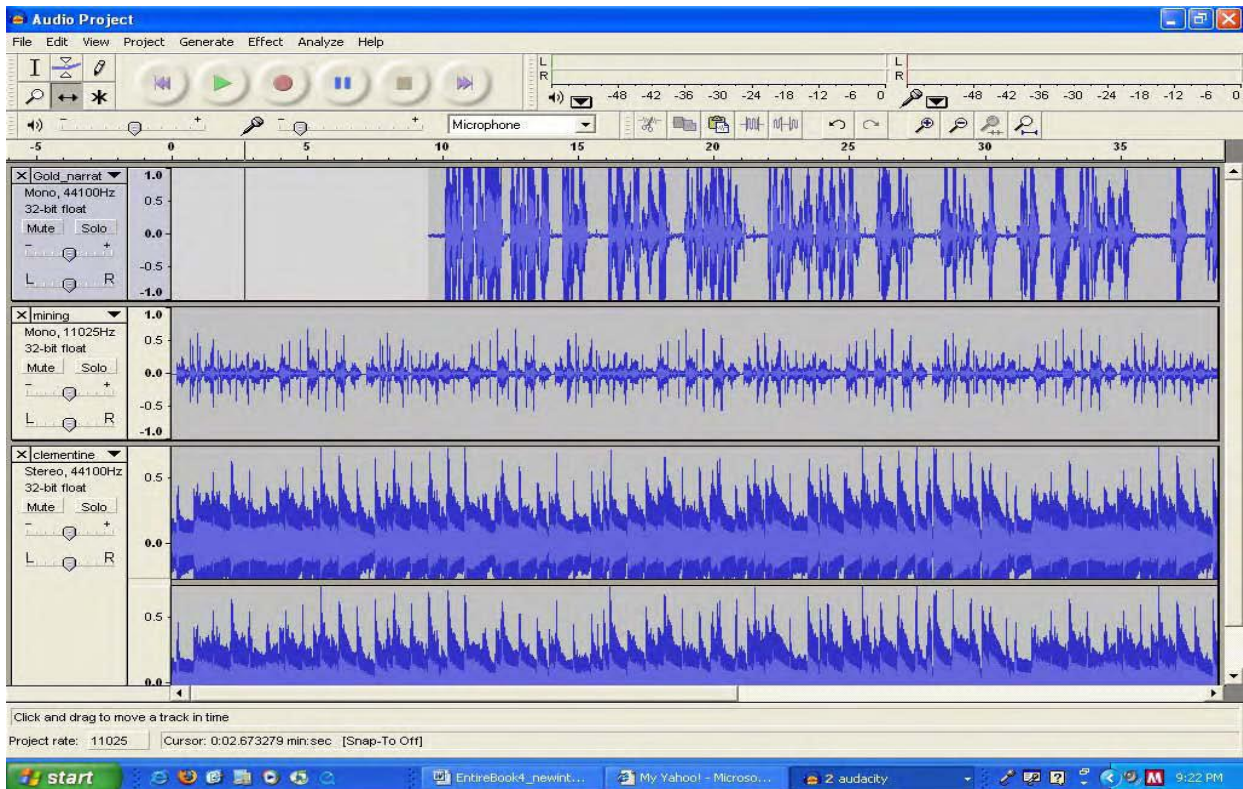
Above: Mining track highlighted



Above: Mining track pasted three times after original--the beginning of an audio loop.

Moving a Track

We will use the time shift tool to move the narration back 10 seconds. Make sure your recording is stopped. Hit the Time Shift Tool in the top right of your screen. Drag the narration back ten seconds.

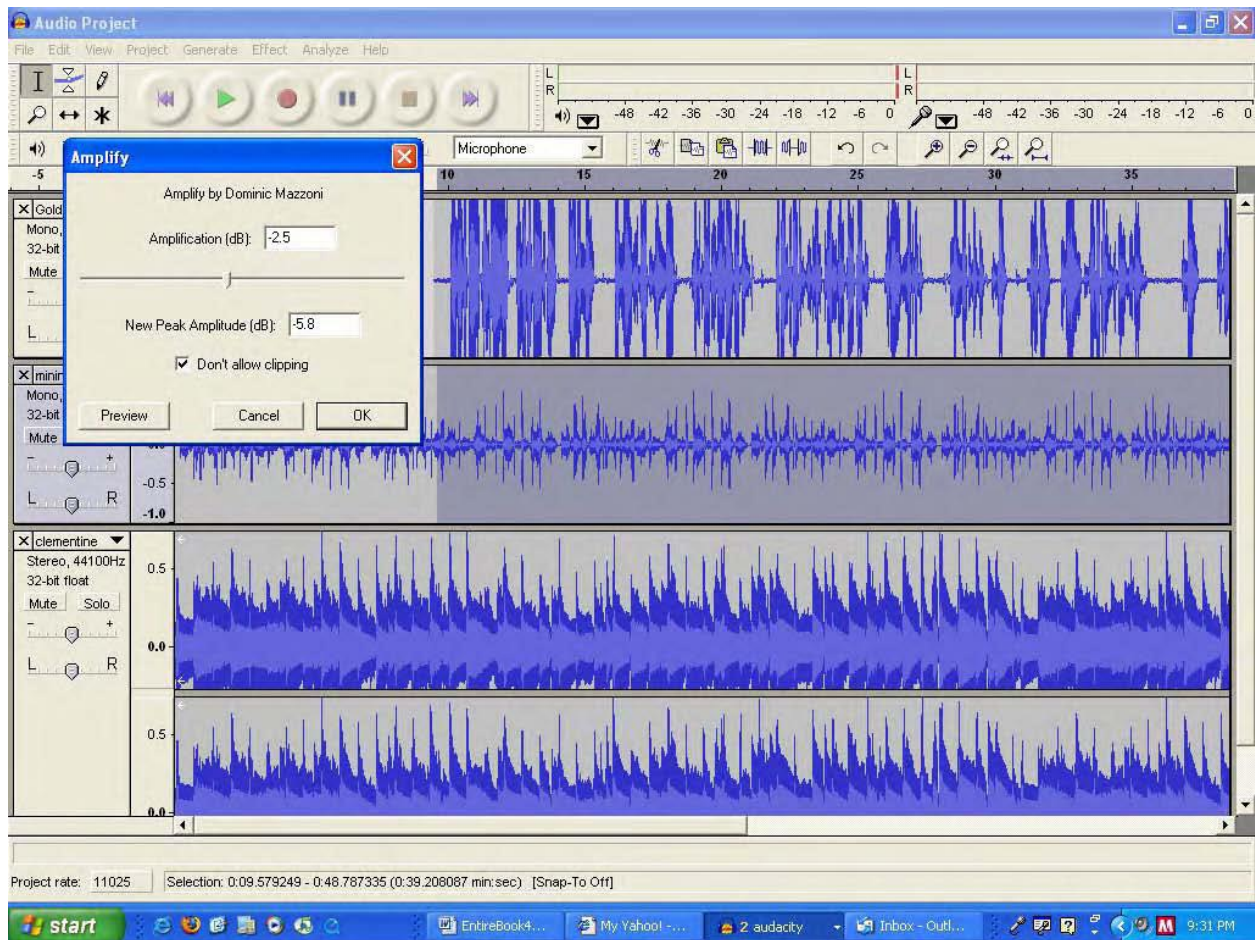


Hit the play button on the top of the screen to hear your creation.

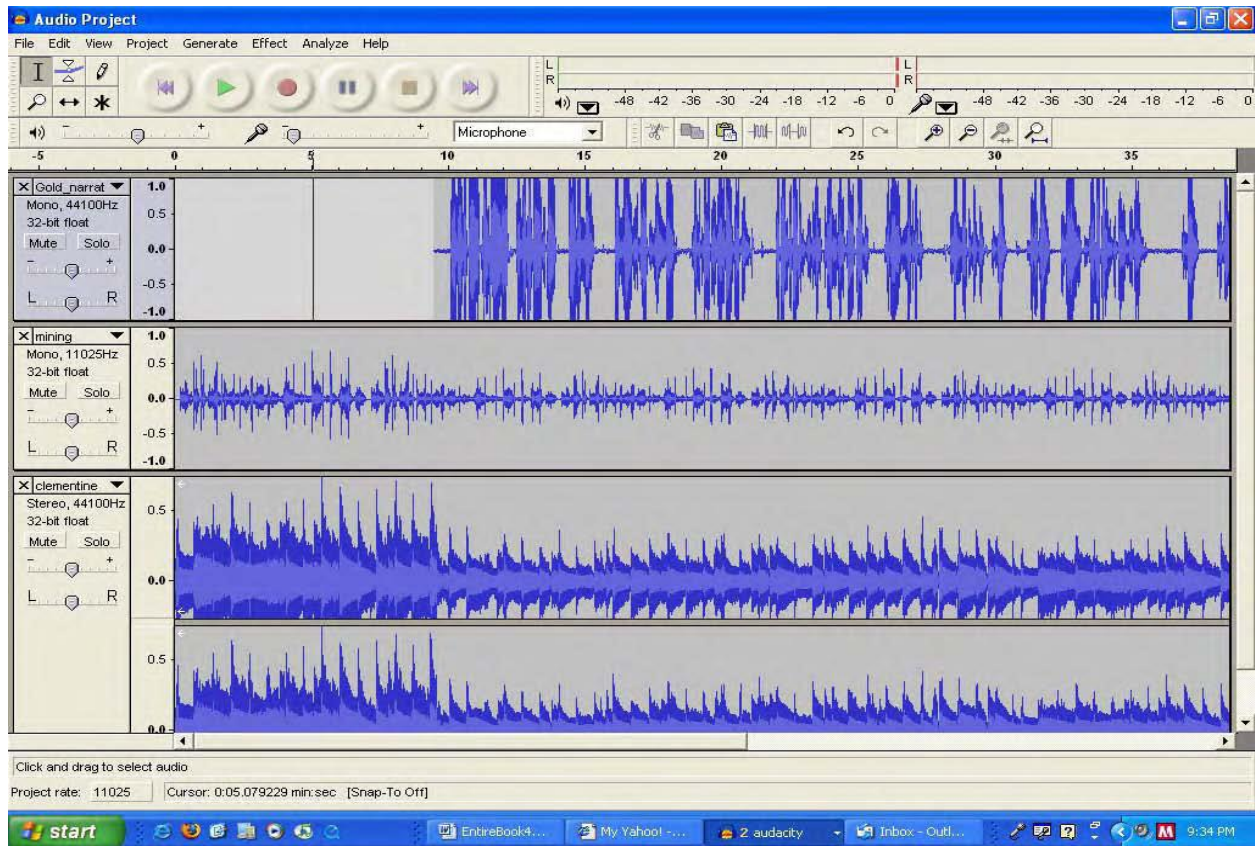
Lower the Volume of Selected Tracks

Finally, we are going to lower the volume on the mining sound effects and music when the narration is playing. We will lower the volume on the mining track first. Using the Select Tool, highlight the section of the mining track that is concurrent to the narration.

Then go to Effects, Amplify and lower the amplification by 2.5 decibels (-2.5 dB). You will have to experiment with the exact levels based on the recording of your narration.



Repeat this with the Clementine track. Play the entire audio project. Make minor adjustments to taste. Your final project should look something like this.



Finally, Export as an MP3 (File/Export as MP3), and you have the finished file.